

REMARKS

The changes made in the foregoing amendments are shown in the appendix.

The election of claims 1-22 and 30 is affirmed. In anticipation of allowance of this application claims 23-29 are canceled without prejudice or disclaimer to pursuing the coverage of those claims in another patent application.

The content of claim 2 is added to claim 1 to render claim 1 more specific. Accordingly, claim 2 is canceled as redundant.

Claim 12 is objected to as being broader than claim 7, to which it depends. This is corrected by amending claim 12 to specify the styrenes claimed in claim 7.

Claims 5-6 are rejected as indefinite because there is no previous recitation of "fine particles" in the claims. This is corrected by amendment of claim 5 adding such a recitation. Support for "fine particles separated therefrom" is at page 18, line 11.

Claims 7 and 8 are rejected as indefinite for the use of "substitution analogs" and "substitution copolymers" as being unclear as to what is substituted. This is corrected by deleting those phrases and adding "substituted styrene" in one instance in each claim.

Claims 7 and 8 are also rejected as indefinite for being unclear as to when cited polymer are "reactants". This is corrected by rewriting claim 7 to directly state that the "primary resin comprises a resin selected from the group" and by amending the group language to recite only polymers.

Claim 30 is rejected as indefinite as not having consistent language of composition or process. This is corrected by deleting the process terms and adjusting the grammar to be consistent with claiming a composition.

Claims 1-7 and 14 are rejected as being anticipated by Lin. However, Lin does not use the term "random" with respect to the compatibilizer and in fact discloses and regularly alternating polymer of olefin component and imide component. Claim 1, the independent claim in this rejection, now expressly requires that one of the compatibilizer components have a monomer reactivity ratio with respect to the other component exceeding 1 and that the compatibilizer have a structure characteristic of reaction in accordance with the reactivity ratio. (Reactivity ratios are discussed at page 15, line 6 through page 16, line 13.)

Although it is difficult to imagine a random polymer which is regularly alternating like the subject polymer of Lin, the foregoing language with respect to a reactivity ratio clearly excludes the subject polymer of Lin.

Claims 1-4, 7-10, 12 and 22 are rejected as anticipated by Crystal. Crystal does use the term random polymer, but only in the context of describing a shaded copolymer disclosed for use as a compatibilizer. The exact language of Crystal is, at col.4, lines 47-53, which reads: "a shaded copolymer, as known in the art, is a random copolymer in which one end of the chain has a high concentration of one component of the copolymer and the other end of the chain has a high concentration of a second component of the copolymer." (Example XI of Crystal has a polymer having a random component, but is a block polymer.)

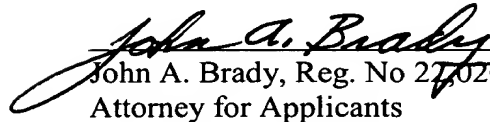
Claim 1 is amended to exclude the "shaded" copolymer of Crystal by specifying a reactivity ratio, as discussed in the foregoing, and by specifying that the resulting resin have "structure characteristic of reaction in accordance with said reactivity ratio throughout all of said secondary resin." Such language clearly excludes the partial randomness of the Crystal "shaded" copolymer.

Claims 1-10, 12-18, 20-22 are rejected as obvious over Crystal in view of Katado and Sato. However, the Crystal reference is now clearly distinguished as discussed in the foregoing. Katado and Sato are cited for teaching polyolefins, such as polyethylene and polypropylene waxes, as release agents. Crystal is the only teaching regarding the random polymer, and such teachings of Katado and Sato could not supply the deficiencies of Crystal as a reference in that Crystal teaches a shaded polymer, not a fully random polymer, as claimed.

Claims 11 and 19 are rejected as obvious over Crystal in view of Katado and Sato as applied to claims 1-10, 12-18, and 20-22 and further in view of Mahabadi. As just discussed Katado and Sato could not supply the deficiency of Crystal as a reference in that Crystal teaches a shaded polymer, not a fully random polymer as claimed. Mahabadi is cited for teaching olefins as a toner resin component. Similarly, such teaching could not supply the deficiency of Crystal in teaching a shaded polymer, not a fully random polymer.

Accordingly, reconsideration is due course is respectfully requested, followed by allowance of claims 1, 2-22 and 30, all of the pending claims.

Respectfully submitted,
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APPENDIX

The changes made in the foregoing amendments to claim 1, 5, 7, 8, 11, 12 and 30 are as follows.

1.(Amended) A toner composition comprising:

- a) a primary resin having a polymeric structure comprising at least one distinct repeating structural unit;
- b) at least one wax release agent having a polymeric structure comprising at least one distinct repeating structural unit; and
- c) a secondary resin at least partially compatibilizing said primary resin and said wax comprising a random copolymer, wherein the structure of said random copolymer has at least one repeating structural unit compatible with at least one distinct repeating structural unit of said primary resin and at least one other repeating structural unit which is compatible with at least one distinct repeating structural unit of said wax release agent, at least one of said repeating structural units having a monomer reactivity ratio with respect to the other of said repeating structural units exceeding 1 and said secondary resin having structure characteristic of reaction in accordance with said reactivity ratio throughout all of said secondary resin.

5.(Amended) The composition of claim 1, wherein said toner composition is particulate having toner particles and fines separated from said toner particles and wherein said random copolymer is present in an amount effective to reduce the differential of wax contents between said [the] toner particles and [the] said fines particles to less than about 20 weight percent.

7.(Amended) The composition of claim 1, wherein said primary resin comprises [is the polymeric reaction product of reactants] a resin selected from the group consisting [of styrene and its substitution analogs,] homopolymers and copolymers of styrene and substituted styrene [substitution copolymers thereof], acrylic and (meth)acrylic [monomers and their] polymers and copolymers, polyvinyl [vinyl] chloride, [and its polymers, vinyl] polyvinyl alcohol, [and its polymers, olefins and] polyolefins, [urethanes and] polyurethanes, [amides and] polyamides, [epoxides and] polymers and copolymers of epoxides, and [esters and] polymers and copolymers of esters.

8.(Amended) The composition of claim 7, wherein said primary resin comprises at least one homopolymer or copolymer of styrene and substituted styrene. [substitution copolymers thereof.]

11.(Amended) The composition of claim 7, wherein said primary resin comprises a polyolefin. [polymer reaction product incorporating at least one olefin.]

12.(Amended) The composition of claim 7, wherein said primary resin comprises a homopolymer or copolymer of styrene or substituted styrene. [a polymer reaction product incorporating at least one vinyl monomer.]

30.(Amended) In a toner composition comprising about 100 parts of a styrene/acrylic random copolymer base resin and about 3 parts of a polyethylene wax additive, [an improved method of compatibilizing the components,] the improvement comprising:

[adding] said composition including a high molecular weight random copolymer compatibilizer [until it is] present in said toner composition to a level that is about 1.5 weight percent relative to the weight of said styrene/acrylic random copolymer, wherein said compatibilizer comprises 81 weight percent ethylene and 19 weight percent n-butyl acrylate monomer units.